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Booklet 1A

Student and teacher: Use this cover sheet for mailing or faxing.

## ASSIGNMENT BOOKLET 1A

SCN1270 Science 10  
Module 1: Section 1 Assignment

### FOR STUDENT USE ONLY

Date Assignment Submitted:

(If label is missing or incorrect)

Time Spent on Assignment:

Student File Number:

Module Number: \_\_\_\_\_

### FOR OFFICE USE ONLY

Assigned  
Teacher: \_\_\_\_\_

Assignment  
Grading: \_\_\_\_\_

Graded by: \_\_\_\_\_

Date Assignment Received:

### Student's Questions and Comments

Apply Module Label Here

Name	Address	Postal Code
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*Please verify that preprinted label is for  
correct course and module.*

### Teacher's Comments

\_\_\_\_\_  
Teacher

## **INSTRUCTIONS FOR SUBMITTING THIS DISTANCE LEARNING ASSIGNMENT BOOKLET**

When you are registered for distance learning courses, you are expected to regularly submit completed assignments for correction. Try to submit each Assignment Booklet as soon as you complete it. Do not submit more than one Assignment Booklet in one subject at the same time. Before submitting your Assignment Booklet, please check the following:

- Are all the assignments completed? If not, explain why.
- Has your work been reread to ensure accuracy in spelling and details?
- Is the booklet cover filled out and the correct module label attached?

### **MAILING**

1. Do **not** enclose letters with your Assignment Booklets. **Send all letters in a separate envelope.**
2. Put your Assignment Booklet in an envelope and take it to the post office and have it weighed. Attach **sufficient postage** and seal the envelope.

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2. All faxing costs are the responsibility of the sender.

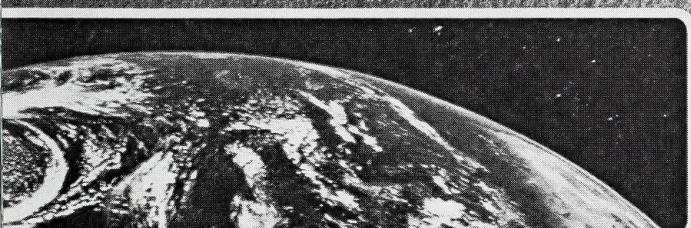
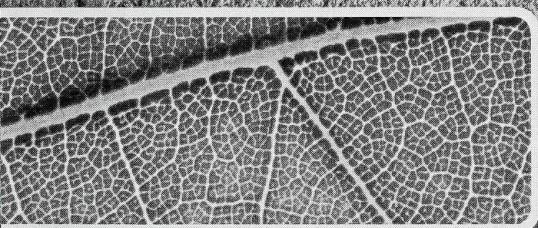
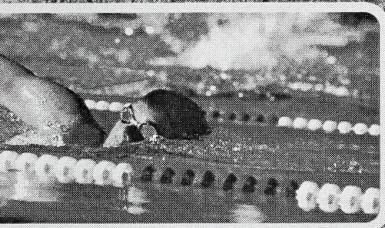
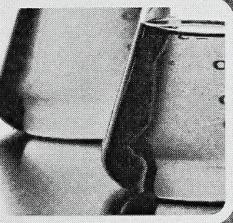
### **E-MAILING**

It may be possible to e-mail your completed Assignment Booklet to the school with which you are registered. You also may be **required** to e-mail some of your assignments. Contact your teacher for the appropriate e-mail address.

# SCIENCE 10

## Module 1

*Energy and Matter  
in Chemical Change*



**Assignment  
Booklet 1A**



Learning  
Technologies  
Branch

**Alberta**  
EDUCATION

## FOR TEACHER'S USE ONLY

### Summary

	Total Possible Marks	Your Mark
Section 1 Assignment	32	

### Teacher's Comments

#### Science 10

Module 1: Energy and Matter in Chemical Change

Assignment Booklet 1A

Section 1 Assignment

Learning Technologies Branch

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**The Learning Technologies Branch acknowledges with appreciation the Alberta Distance Learning Centre and Pembina Hills Regional Division No. 7 for their review of this Assignment Booklet.**

This document is intended for	
Students	✓
Teachers	✓
Administrators	
Home Instructors	
General Public	
Other	



You may find the following Internet sites useful:

- Alberta Education, <http://www.education.gov.ab.ca>
- Learning Technologies Branch, <http://www.education.gov.ab.ca/ltb>
- Learning Resources Centre, <http://www.lrc.education.gov.ab.ca>

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**ASSIGNMENT BOOKLET 1A**  
**SCIENCE 10: MODULE 1**  
**SECTION 1 ASSIGNMENT**

This Assignment Booklet is worth 32 marks out of the total 140 marks for the assignments in Module 1. The value of each assignment and each question is stated in the left margin.

Read all parts of your assignment carefully and record your answers in the appropriate places. If you have difficulty with an assignment, go back to your Student Module Booklet and review the appropriate lesson. Be sure to proofread your answers carefully before submitting your Assignment Booklet.

**Section 1 Assignment: The Structure of Matter**

32

Read question 1 carefully. Decide which of the choices BEST completes the statement. Place your answer in the blank space given.

1. Standard eyeglasses are not enough protection in the science lab because

- A. the lens may break
- B. there is no protection from the sides
- C. a standard eyeglass lens is not thick enough
- D. standard eyeglasses may fall off

2. Match each meaning with the appropriate WHMIS symbol. Place your answer in the blank space given.

- 1/2 a. materials causing other toxic effects
- 1/2 b. flammable and combustible material
- 1/2 c. corrosive material
- 1/2 d. materials causing immediate and serious toxic effects
- 1/2 e. compressed gas
- 1/2 f. biohazardous infectious material
- 1/2 g. dangerously reactive material
- 1/2 h. oxidizing material

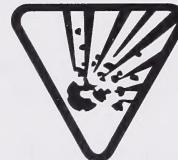


3. Match each description with the appropriate safety hazard symbol. Place your answer in the blank space given.

i.



ii.



iii.



iv.



v.



vi.

  $\frac{1}{2}$ 

\_\_\_\_\_ a. The contents are flammable.

  $\frac{1}{2}$ 

\_\_\_\_\_ b. The contents are corrosive.

  $\frac{1}{2}$ 

\_\_\_\_\_ c. The container may explode.

  $\frac{1}{2}$ 

\_\_\_\_\_ d. The contents are poisonous.

4. Match each location with the hazardous substance from the following list you would most likely find in that location. Place your answer in the blank space given.

i. oven cleaner

ii. pesticide

iii. toilet bowl cleaner

iv. paint thinner

  $\frac{1}{2}$ 

\_\_\_\_\_ a. garage

  $\frac{1}{2}$ 

\_\_\_\_\_ b. garden shed

  $\frac{1}{2}$ 

\_\_\_\_\_ c. bathroom

  $\frac{1}{2}$ 

\_\_\_\_\_ d. kitchen

Return to page 24 of the Student Module Booklet and begin Section 1: Lesson 2.

For questions 5 to 8, read each question carefully. Decide which of the choices BEST completes the statement or answers the question. Place your answer in the blank space given.

1        5. Sodium metal reacts vigorously with water. This is an example of a

- A. physical property
- B. chemical property
- C. nuclear reaction
- D. physical reaction

1        6. Which is an example of a physical property?

- A. solubility
- B. ability to burn
- C. behaviour in air
- D. reaction with acids

1        7. Which indicates that a reaction has occurred after one substance has been added to another?

- A. Bubbles appear.
- B. The solution turns cloudy.
- C. The container becomes warmer.
- D. all of the above

1        8. A chocolate chip cookie is an example of a(n)

- A. element
- B. atom
- C. mechanical mixture
- D. homogeneous mixture

1        9. Gold and helium are examples of a(n) \_\_\_\_\_.

1        10. Water is an example of a(n) \_\_\_\_\_.

1        11. A substance freezes at  $-58^{\circ}\text{C}$ . Therefore, the substance melts at \_\_\_\_\_.

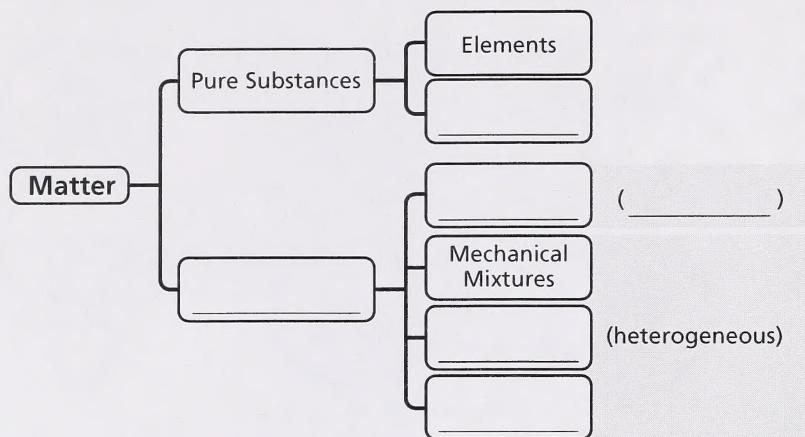
2        12. John placed a number of small stones into a plastic container of water and froze it. State what kind of mixture John has and give a reason for your choice.

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13. Complete the following classification of matter by filling in the blanks. (3)



Return to page 34 of the Student Module Booklet and begin Section 1: Lesson 3.

For questions 14 to 16, read each question carefully. Decide which of the choices BEST completes the statement or answers the question. Place your answer in the blank space given.

14. Lactobacilli bacteria are present in which food preservation process? (1)

- A. heating
- B. salting
- C. freezing
- D. fermentation

15. A model of the atom with electrons moving around a positively charged nucleus was first proposed by (1)

- A. J. J. Thomson
- B. Ernest Rutherford
- C. John Dalton
- D. Neils Bohr

16. In the modern quantum mechanical theory of the atom, electron movement is thought to be a (1)

- A. particle moving around a positively charged nucleus
- B. "cloud" of negative charge in the centre
- C. negatively charged particle at a certain energy level
- D. "cloud" of negative charge occupying the space at a certain energy level

17. Determine whether each statement is true (T) or false (F). Place your answer in the blank space given.

\_\_\_\_\_ a. First Nations people along the west coast of British Columbia used smelting technology to create copper plaques.

\_\_\_\_\_ b. Alchemy contributed to the development of chemistry.

\_\_\_\_\_ c. The quantum mechanical model of the atom is absolutely correct and will never be changed.

\_\_\_\_\_ d. Neils Bohr used the hydrogen emission spectrum to show that electrons emit different colours of light when they drop from a higher energy level to a lower energy level.

\_\_\_\_\_ e. Ernest Rutherford discovered that all high-speed particles are deflected when fired at a sheet of gold foil.

18. Antoine Lavoisier measured the masses of the substances that reacted together and the masses of the substances produced in a chemical reaction. He discovered that mass is neither created nor lost in a chemical reaction. Which law is illustrated by his discovery?

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19. Identify a career other than a chemist that requires some knowledge of chemistry. Explain how a knowledge of chemistry is required.

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Submit your completed Assignment Booklet 1A to your teacher for assessment. Then return to page 44 of the Student Module Booklet and begin Section 2.

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